# GV-DVR E100
# User's Manual

Welcome to the GV-DVR E100 System User's Manual.

The Manual provides an overview of the GV-DVR E100 System and its accessories. It also includes the instructions to guide you through the installation and use of the GV-DVR E100 System:

- **Chapter 1, *Introduction***

  Identifies the GV-DVR's accessories and options.

- ***Chapter 2, Overview***

  Identifies the GV-DVR's components.

- ***Chapter 3, Getting Started***

  Provides step-by-step instructions on setting up the GV-DVR E100.

- ***Chapter 4, DVR Health Analysis***

  Introduces how to collect data to obtain the service of DVR health analysis from GeoVision.

- ***Chapter 5, Troubleshooting***

  Suggests courses of action if the GV-DVR doesn't seem to be working properly.

**The instructions and figures in this manual are based on GV-System version 8.3.**

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# Regulatory Notices

## FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

### Class A

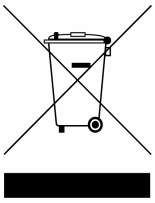
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

## CE Notice

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

## RoHS Compliance

The Restriction of Hazardous Substances (RoHS) Directive is to forbid the use of hazardous materials of production. To meet the RoHS Directive requirements, this product is made to be RoHS compliant.



## WEEE Compliance

This product is subject to the Waste Electrical and Electronic Equipment (WEEE) Directive and made compliant with the WEEE requirements.

# Safety Instructions

Observe these safety instructions to help ensure against injury to yourself and damage to the product.

- **Read** all safety and installation instructions before you operate the product.
- **Do not operate** the product in high humidity areas or expose it to water or moisture.
- **Do not put** the product in an unstable, a slanting or vibrated place.
- **Do not block** any ventilation opening.
- **Do not install** the product near any heat sources such as radiator, heat register or other apparatus that produce heat.
- **Operate** the product using only the type of power source indicated on the marking label.
- **Do not defeat** the safety purpose of the grounding-type plug. A grounding plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **Do not overload** wall outlets or extension cords, as this may cause fire or electric shock.
- **Do not use** the product when abnormality occurs, such as emitting smoke from the product, smelling burning, being damaged by drop, invasion of foreign objects inside the product, etc. Be always sure to remove the AC adaptor at once and contact your dealer.
- **Do not use** accessories or attachments not recommended by the manufacturer, as they may cause hazards and void the warranty.
- **Do not attempt** to service the product yourself, as removing the casing may expose you to dangerous voltage and void the warranty.

# Chapter 1 Introduction

## 1.1 Unpacking

The GV-DVR E100 package includes the following items:

**Important:** Please keep the original carton and all packing materials for future shipping need.

1. GV-DVR E100 System x 1

2. D-Type Audio Cable x 2 / 4 for 32 channel DVR
   (1 x 1-8 Channels Red Cable, 1 x 9-16 Channels Red Cable)

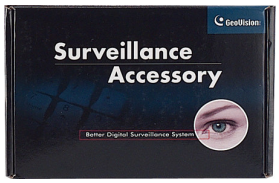
3. RJ-11 to DB9 Cable x 1

4. Lock Key x 2

5. AC Power Cord x 1

6. GV-Keyboard Package x 1

7. IR Remote Control Package x 1




8. Recovery DVD x 1
9. Nero Express CD x 1
10. Surveillance System Software CD x 1
11. GV-DVR E100 System User's Manual x 1
12. Surveillance System New Feature Guide x 1
13. Surveillance System Installation Guide x 1

If any of the items are missing or damaged, contact your dealer to arrange a replacement.

## 1.2 Models

The GV-DVR E100 is available in the following configurations:

| | |
|---|---|
| **GV-2016** | - Sixteen-channel digital video recorder<br>- Records up to 400 (PAL) fps at the D1 resolution<br>- Has the option of 1500GB, 2000GB, 2500GB internal storage |
| **GV-2008** | - Eight-channel digital video recorder<br>- Records up to 200 (PAL) fps at the D1 resolution<br>- Has the option of 1500GB, 2000GB, 2500GB internal storage |
| **GV-1480** | - Up to 32 channel digital video recorder<br>- Records up to 800 (PAL) fps at the CIF resolution<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-1240** | - Up to 32 channel digital video recorder<br>- Records up to 400 (PAL) fps at the CIF resolution<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-1120** | - Up to 32 channel digital video recorder<br>- Records up to 200 (PAL) fps at the CIF resolution<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-800** | - up to 32 channel digital video recorder<br>- Records up to 200 (PAL) fps at the CIF resolution<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-650** | - up to 32 channel digital video recorder<br>- records up to 100 (PAL) fps at the CIF resolution<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-2016 Hybrid** | - 16 channels of H/W compressed analog and 16 channels of IP video recording<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-2008 Hybrid** | - 8 channels of H/W compressed analog and 24 channels of IP video recording<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-1480 Hybrid** | - 16 channels of analog and up to 16 channels of IP video recording<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-1240 Hybrid** | - 8 or 16 channels of analog and up to 24 channels of IP video recording<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-1120 Hybrid** | - 8 or 16 channels of analog and up to 24 channels of IP video recording<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-800 Hybrid** | - Up to 32 channels of analog and IP video recording<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |
| **GV-650 Hybrid** | - Up to 32 channels of analog and IP video recording<br>- Has the option of 500GB, 1000GB, 1500GB, 2000GB, 2500GB internal storage |

## 1.3 Options

Optional devices can expand your GV-DVR E100's capabilities and versatility. Contact your dealer for more information.

| | |
|---|---|
| **GV-IO 12-In Card** | With 12-point digital inputs, this card can expand the GV-DVR up to 16 sensor inputs. |
| **GV-IO 12-Out Card** | With 12-point relay outputs, this card can expand the GV-DVR up to 16 alarm outputs. |
| **GV-Multi Quad Card** | With this card, the GV-DVR can connect up to 5 TV screens. The screen divisions on the TV screens can be definable. |
| **GV-Data Capture V3 Series** | GV-Data Capture V3 can integrate the GV-DVR to an electronic POS system, while GV-Data Capture V3E can establish such integration through LAN or Internet. |
| **GV-IO BOX 4 Ports** | The GV-IO Box 4 provides 4 inputs and 4 relay outputs. It supports both DC and AC output voltages, and provides a USB port for PC connection. |
| **GV-IO BOX 8 Ports** | The GV-IO Box 8 provides 8 inputs and 8 relay outputs. It supports both DC and AC output voltages, and provides a USB port for PC connection. |
| **GV-COM Box** | This unit can add 1 RS-232/RS-485 serial port through the GV-DVR's USB port. |
| **GV-Joystick** | GV-Joystick facilitates the PTZ camera control. It can be either plugged into the GV-DVR for independent use or connected to GV-Keyboard to empower the operation. However, this device can only work on GV-System version 8.2 or later. |
| **Hard Disk** | Multiple options for the HDD capacity are available to meet different needs. |
| **Storage system** | Is a high-performance RAID storage system based on the latest iSCSI technology. It provides a centralized network recording solution over TCP/IP by enabling the storage of multiple video and audio streams at the same time. |

**Note:** The purchased GV-series cards will be added on the GV-DVR before shipment.

# Chapter 2 Overview

## 2.1 Front View

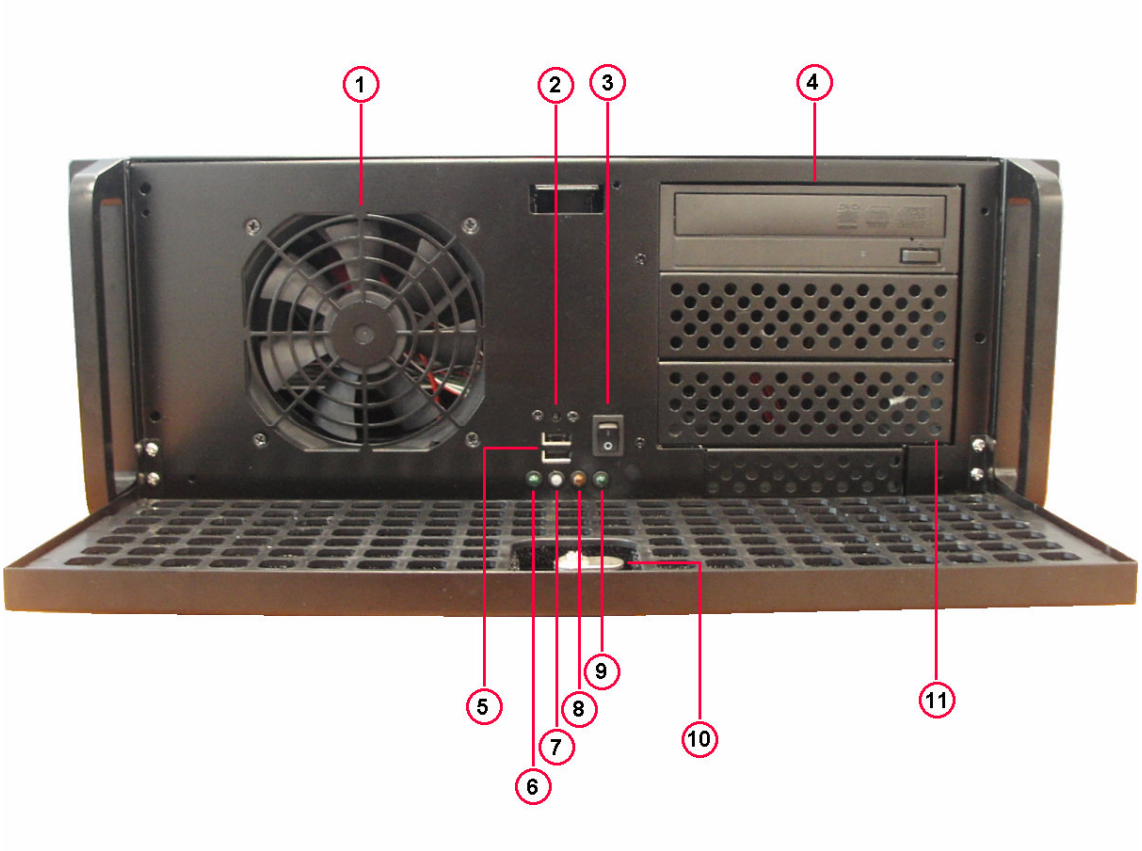



***Figure 1***

| | | | |
|---|---|---|---|
| 1 | Fan | 6 | System LED |
| 2 | Reset switch | 7 | Fan fail LED |
| 3 | Power switch | 8 | HDD LED |
| 4 | DVD ± RW Drive | 9 | Power LED |
| 5 | USB Port x 2 | 10 | Key lock |
| | | 11 | 5.25” Hard Disk Compartment |

## 2.2 Rear View

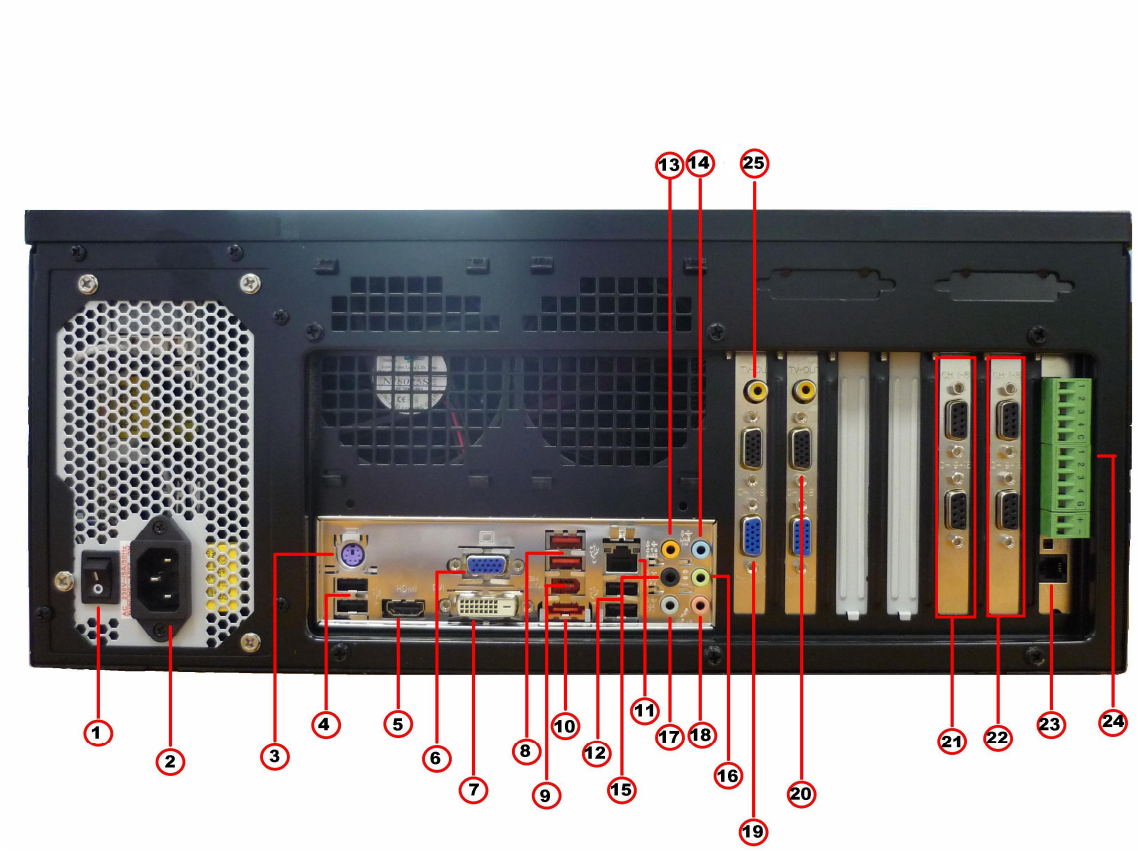



*Figure 2*

| | | | |
|---|---|---|---|
| 1 | AC Power Switch | 14 | Audio Line In Port |
| 2 | AC Power Input (Full Range) | 15 | Rear speaker out (for HD audio) |
| 3 | PS/2 Keyboard Input | 16 | Audio Line Out Port |
| 4 | USB Port x 2 | 17 | Side speaker out (for HD audio) |
| 5 | HDMI interface | 18 | Audio Microphone In Port |
| 6 | VGA Monitor Port (D-sub) | 19 | BNC Connector x 16 |
| 7 | VGA Monitor Port (DVI) | 20 | BNC Connector x 16 |
| 8 | USB Port x 2 | 21 | D-Type Audio Port x 2 |
| 9 | IEEE 1394 | 22 | D-Type Audio Port x 2 |
| 10 | E-Sata | 23 | RJ-11 Port |
| 11 | Ethernet Port | 24 | RS-485 ± for PTZ Control |
| 12 | USB Port x 2 | 25 | RCA TV Output |
| 13 | Center/ subwoofer (for HD audio) | 26 | |

# Chapter 3 Getting Started

## 3.1 Basic Installation

Basic installation describes all the equipments required to program and operate the GV-DVR E100.

***Figure 3***

1. Using the supplied power cord, connect one end to the AC input and the other end to the power outlet.
2. Connect the keyboard to the PS/2 input.
3. Connect the mouse to the PS/2 input.
4. Using the VGA cable supplied by the monitor manufacturer, connect the VGA monitor.
5. For video lost beep, connect Speakers to the Audio Line Out port.
6. Using the RJ-45 cable, connect one end to the Ethernet port and the other end to Network.
7. Using the BNC video cables, connect one end to the BNC connectors and the other end to video sources.
8. Using the supplied D-type audio cables, connect one end to the audio ports and the other end to audio sources.

---

**Note:** The monitor you use must be capable of having a screen resolution of 1280 x 1024 and display color of 32 bits.

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## 3.2 Turning on the Power

Once the above hardware is properly connected, it is the time to turn on the GV-DVR. To turn on the power, follow these steps:

1. Turn on the monitor.

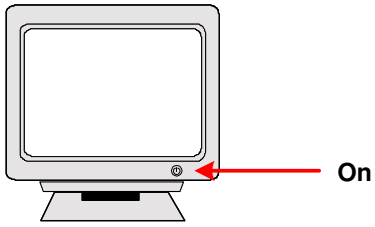


***Figure 4***

2. Turn on the AC power switch on the rear panel.

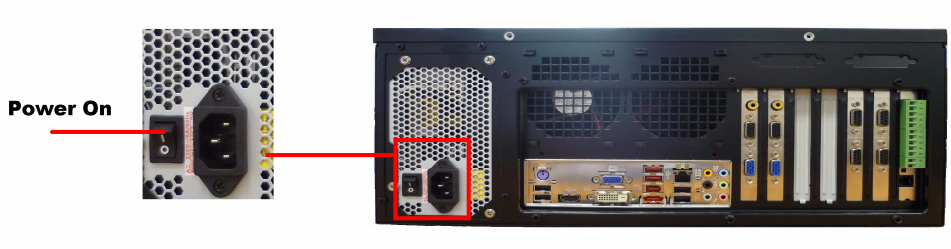


***Figure 5***

3. Turn on the main power switch on the front panel.

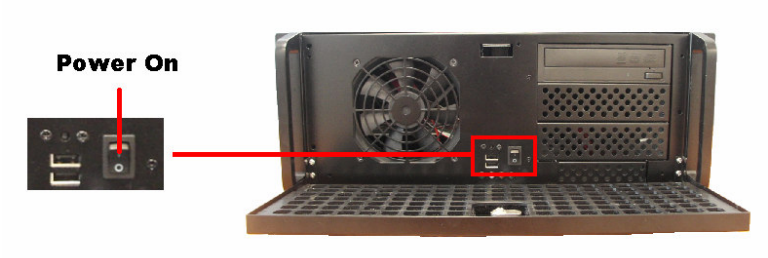


***Figure 6***

The GV-DVR will run a series of self-tests. After two or three minutes, a series of messages may be displayed as the various hardware and software subsystems are activated. After this finishes, the GV-System Software (Multicam Surveillance System) should load automatically and bring you to the main screen with 8 or 16 cameras display.

## 3.3 Configuring an IP Address

The purpose of configuring an IP address is to support the remote monitoring, control and configuration of the GV-DVR over a network connection.

The GV-DVR is enabled for DHCP network. An IP address will be automatically allocated when the GV-DVR E100 is powered up. Despite the DHCP setting, it is recommended that a static IP address be configured on the unit.

The GV-DVR uses Windows operating system to configure an IP address. For this, you must exit to Windows.

---

**Note:** Exiting to the Windows operating system is a protected feature. The default ID and Password is "**0000**".

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### Exit to Windows

1. Exit the main screen to display the GV-Desktop screen.

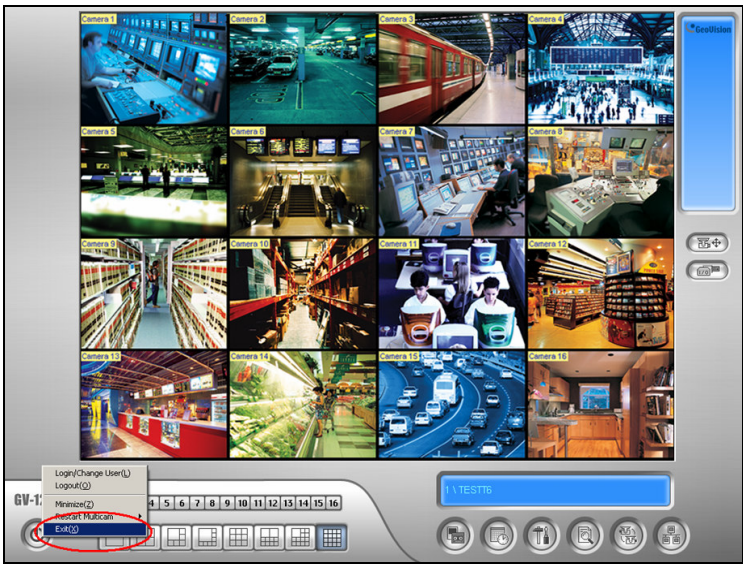


***Figure 7*** *Exit the main screen*

2. Click the **Settings** button, and enter the valid ID and Password to display the Settings dialog box.
3. Under Desktop Type, select **Windows** from the drop-down list, and click **OK**.
4. Click the **Log Off** button, and enter the valid ID and Password to display the Windows desktop.

5. Configure a static IP address on the Windows XP platform. Check your network administrator if you have questions about the configuration.

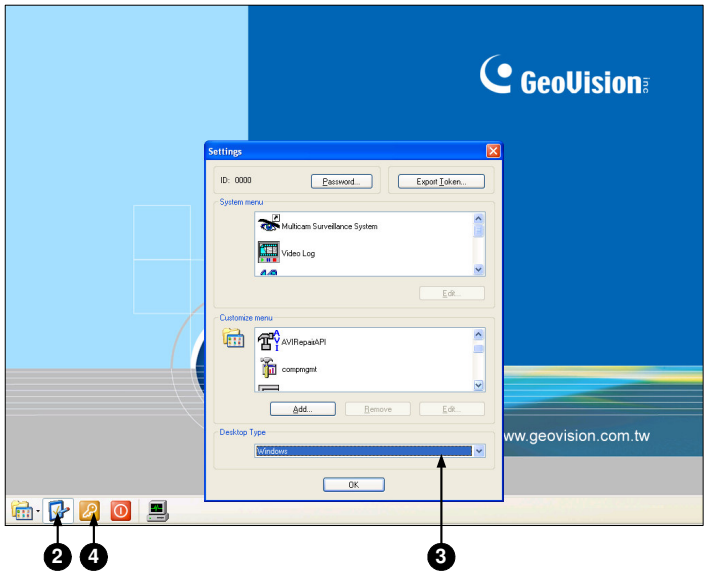


***Figure 8*** *The GV-Desktop*

## Back to GV-Desktop

Click the Windows **Start** button, point to **Programs**, select **GVCombo**, and click **Key Lock Utility**.

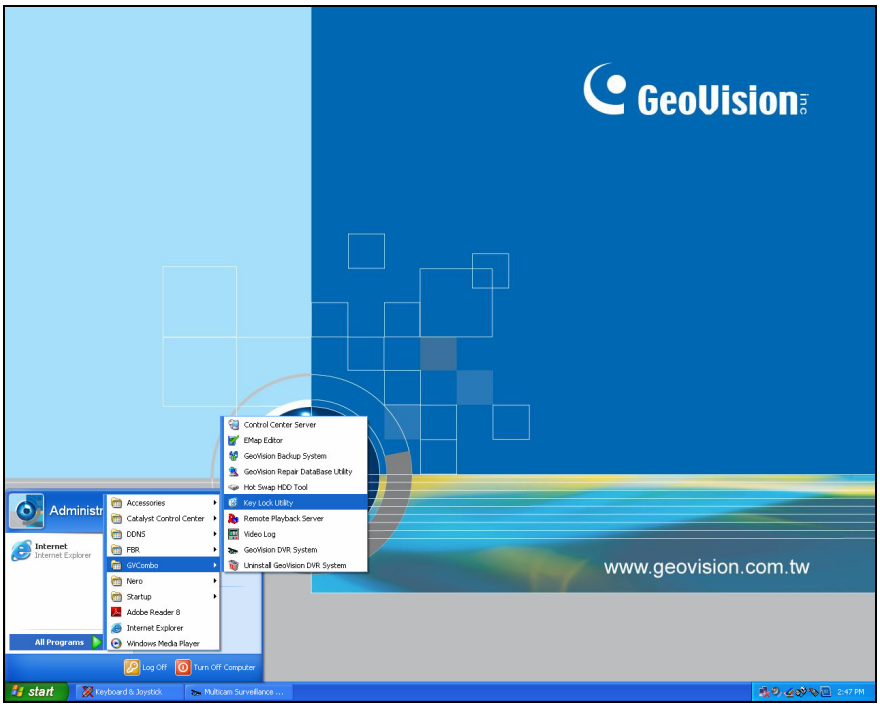


***Figure 9*** *Windows XP desktop*

## 3.4 Extended Installation

Beyond basic installation, the GV-DVR E100 package provides the following accessories to make your unit even more powerful and convenient:

- GV-Keyboard
- IR-Remote Control
- RJ-11 to DB9 Cable for PTZ control

### GV-Keyboard

The GV-Keyboard is designed to operate the GV-DVR E100 exclusively. Using the USB cable supplied with the GV-Keyboard, plug one end into the GV-Keyboard and the other end into the assigned USB port **(COM11)** on the front of the GV-DVR; you can operate the Keyboard immediately without installing any drivers.

For details on the GV-Keyboard, find the *Installation Manual* included in its own package.

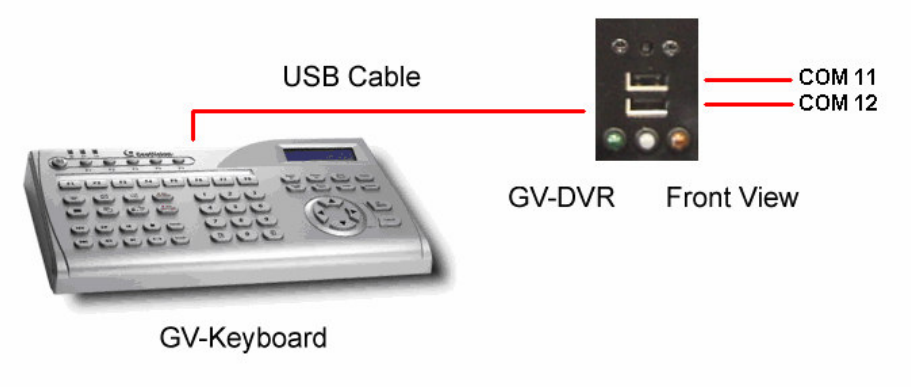


***Figure 10***

It is also possible to plug the Keyboard into other USB ports of the GV-DVR E100. For this, you must modify the default COM port on the Multicam Controller pop-up once the Keyboard is connected. See Figure 11-1.

**To modify the default COM port:**

1. Click ■ to stop the Keyboard service first.
2. In the Port 1 field, modify the port number from the drop-down list. For the port allocation, refer to Figure 11-2.
3. Click ▶ to start the service.

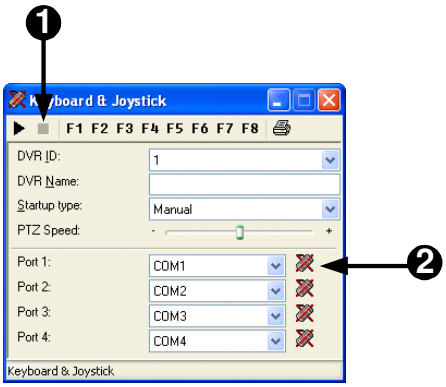


*Figure 11-1*

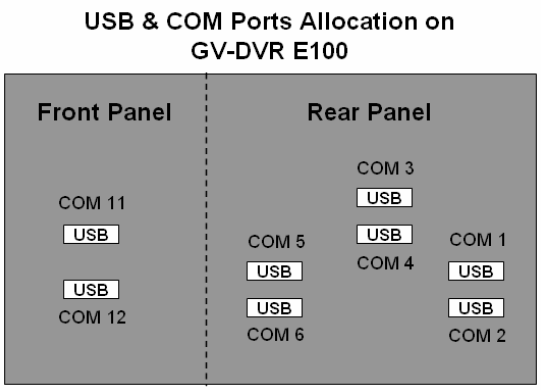


*Figure 11-2*

## IR Remote Control

The IR Remote Control is another plug-and-play device. Simply plug the Receiver into any USB ports of the GV-DVR E100.

For details on the IR Remote Control, find the *User's Manual* included in its own package.

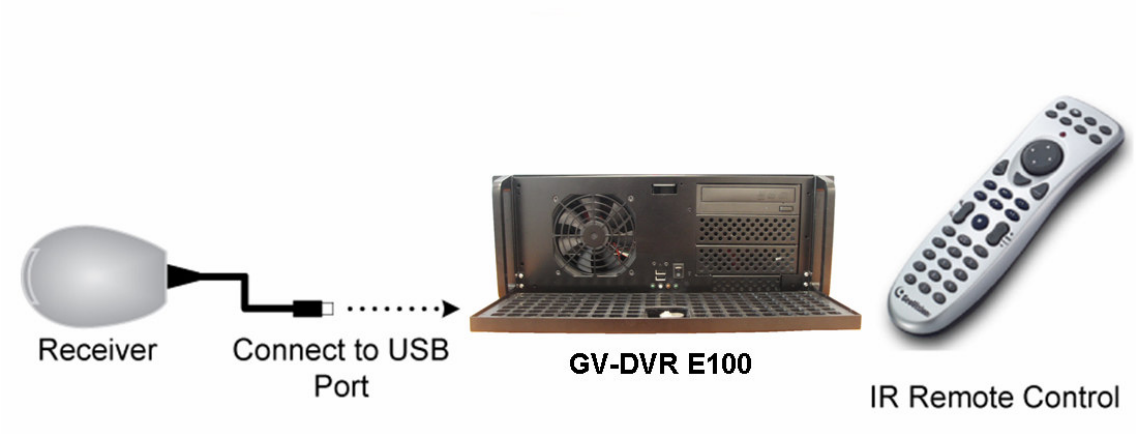


*Figure 12*

## I/O Devices

The GV-DVR E100, with built-in GV-NET/IO Card, provides 4 alarm outputs and 4 sensor inputs.

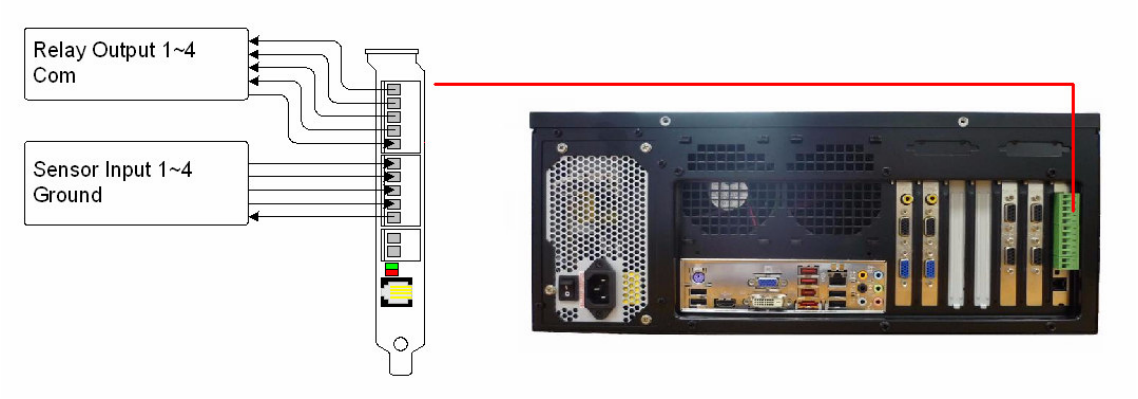


***Figure 13***

## PTZ Domes

When connecting PTZ domes, you need to plug the supplied RJ-11 to DB9 cable into the DB9 port of the GV-DVR E100.

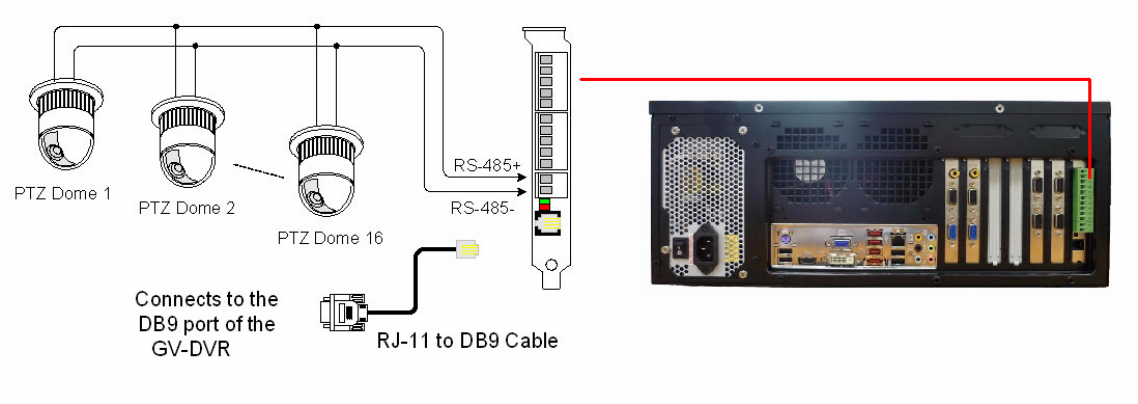


***Figure 14***

## 3.5 Recovery DVD

If preinstalled files are damaged, use the supplied Recovery DVD to restore them. To restore the operation system and all preinstalled software, follow these steps:

---

**Note:** After recovery, you need to re-install all settings and passwords. But the recovery will not delete your recording files saved in the GV-DVR since it only reformats the partition C and all of your files are still stored at other partitions.

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1. Insert the Recovery DVD, and restart the GV-DVR.
2. The message "`Are you sure want to recover C partition?`" will appear. Click **Yes**.

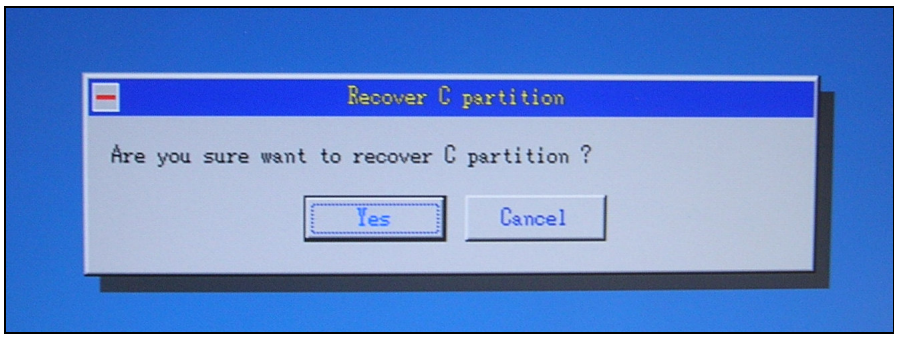


***Figure 15***

3. When the recovery is complete, the message "`Operation completed. Please take out disks from DVD-ROM`" will appear. Click **Yes**, and remove the DVD.

***Figure 16***

## Configuring the GV-DVR E100 for PAL after Recovery

The default video standard of the Recovery DVD is set to NTSC. If the video standard in your country is PAL, remember to configure the GV-DVR for PAL after using the Recovery DVD.

1. Click the **Configure** button, point to **A/V Setting**, and then select **Video Source**.

***Figure 17***

2. In the Video Standard field, select **PAL** from the drop-down list, and click **OK**.

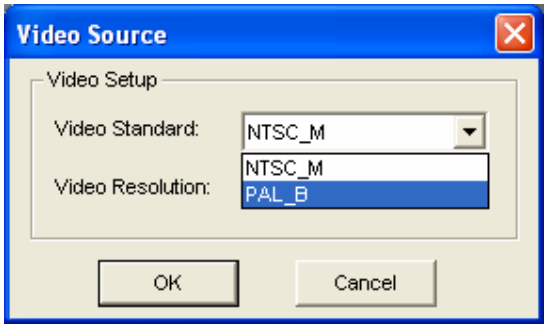


***Figure 18***

## 3.6 Updating GV-DVR E100 System

GeoVision will periodically release the updated Recovery DVD including the latest GV-System Software (Multicam Surveillance System) and Windows updates. If you like to update your GV-DVR E100 System, contact your dealer to get one.

Before contacting your dealer, you may check software update news at our website: http://www.geovision.com.tw

# Chapter 4 DVR E100 Health Analysis

GeoVision offers health analysis to the GV-DVR. The service is intended to give diagnosis for early and immediate detection of problems.

It is recommended to have the health analysis during the first week after you install the GV-DVR, and then have the checkup every three months. It will take 5 working days for response.

Please prepare the following data for analysis, and send to dvrsystem@geovision.eu

- **System Settings**
- **System Log**
- **Information of your computer system (Processor; Drives; Voltage, Temperature and Fans)**

## 4.1 System Settings

Please back up your system configurations using the **Fast Backup and Restore** application.

1. Run **Fast Backup & Restore Main System** from the Start menu.

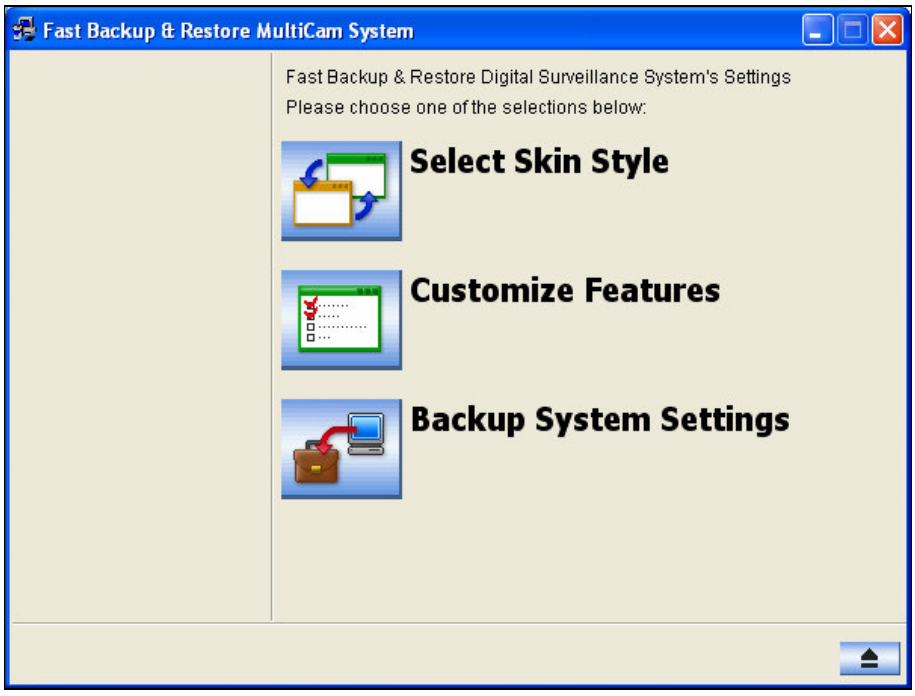
Fast Backup & Restore MultiCam System
Fast Backup & Restore Digital Surveillance System's Settings
Please choose one of the selections below:
Select Skin Style
Customize Features
Backup System Settings

*Figure 19*

2. Select **Backup System Settings**. This dialog box appears.

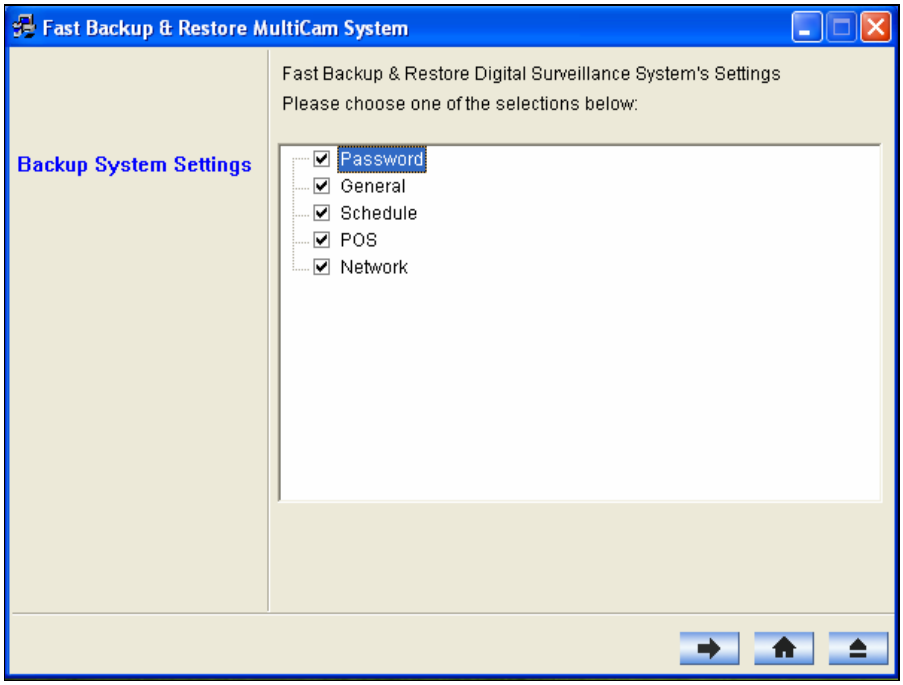


***Figure 20***

3. Press the **Next Step** button to back up all your system settings. The Save As dialog box appears.
4. Select the destination drive to store the backup file. When the backup is complete, this message will appear: *Successfully Backup MultiCam System Settings*.

## 4.2 System Log

Please provide the **sys*.mdb** files of system log. The files by default are saved at **D:\Log\database**. If you have modified the default location, you can check the path by the following steps:

1. Click the **Configure** button on the main system, point to **General Setting**, and then select **System Log Setting**. This dialog box appears.

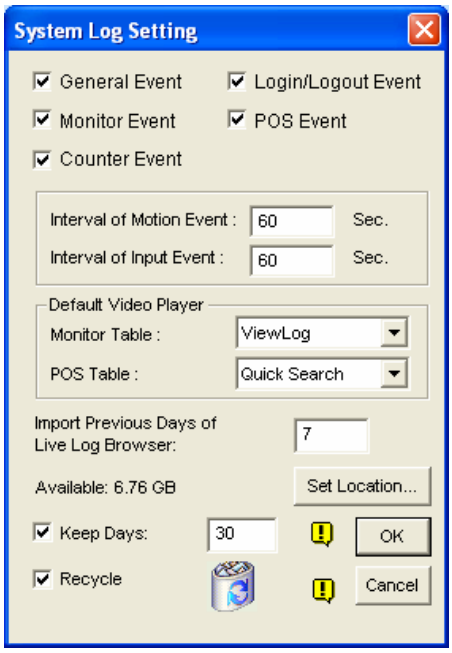


***Figure 21***

2. Click **Set Location**. You should see the location of your system log.

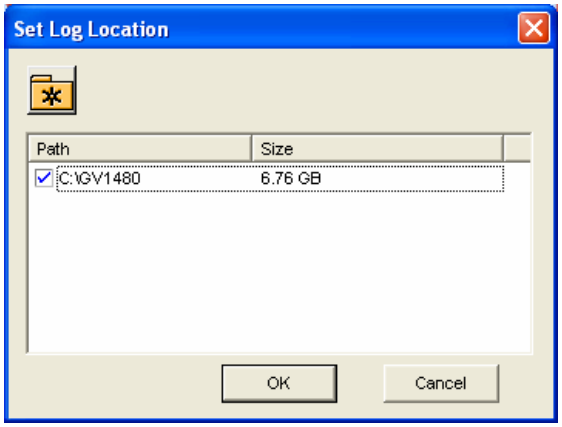


***Figure 22***

## 4.3 Information of Your Computer System

To get the information of your computer system, please follow the steps below to install the free software **PC WIZARD**. By using the software, the computer information can be easily collected and saved for analysis:

- **Processor:** includes Type, Frequency, Data Cache L1, Trace Cache L1, Cache L2, Voltage, Processor Temperature, FPU Coprocessor.
- **Drives:** includes Number of Hard Disk, Number of Drive, Total Size and Free Space of Drive.
- **Voltage, Temperature and Fans:** includes Monitoring Chip, Voltage CPU, Chassis Fan, Processor Temperature, Mainboard Temperature, Hard Disk Temperature.

1. Download and install **PC WIZARD** from http://www.cpuid.com/pcwizard.php .
2. After installation, run the program.
3. Right-click the **Processor** icon , and click **Save as**.

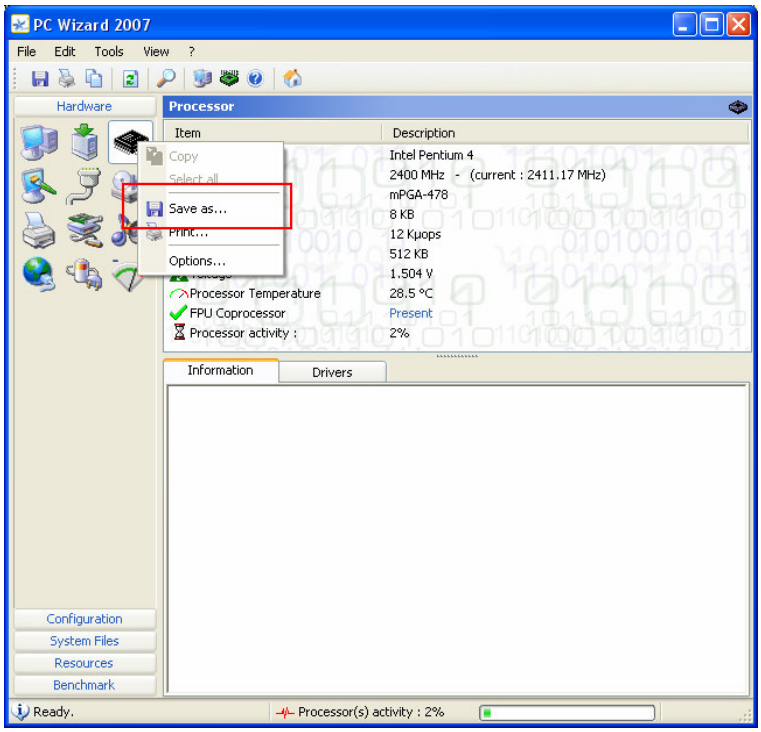


***Figure 23***

4. In the Save As dialog box, select **Format HTML** and click **OK**.

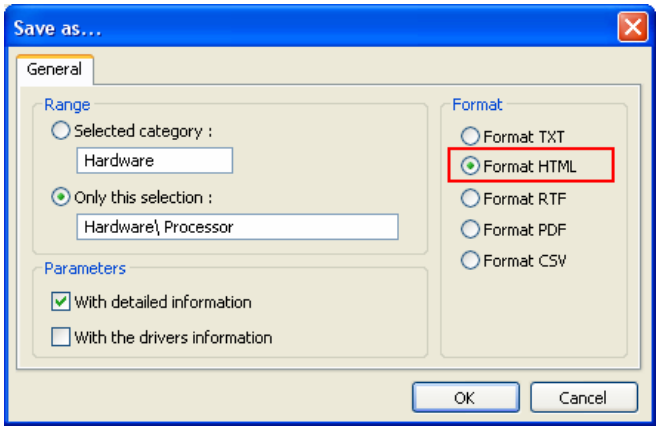


***Figure 24***

5. Select the Save location, type the file name, and then click **Save** to save the Processor information as HTML file.
6. Repeat Steps 3-5 to save the **Drives** information as HTML file.
7. To save the **Voltage, Temperature and Fans** information , please follow these steps:
   A. Click the **Voltage, Temperature and Fans** icon. The related data is displayed at the right window.
   B. Click the first item **Monitoring Chip**.
   C. Click **Edit** on the menu bar and click **Select All** to highlight all the contents.
   D. Click **Edit** on the menu bar and select **Copy**.
   E. Open a Notepad. Paste and save the information to TXT file.

## 4.4 Health Analysis Form

Please send the related data for analysis along with this Health Analysis Form to dvrsystem@geovision.eu

| Health Analysis of GV-DVR E100 | |
|---|---|
| **Contact Person:** | **Title:** |
| **Company Name:** | |
| **Telephone: (O)** | **(H)** |
| **Fax:** | |
| **E-Mail:** | |
| **Model:** | |
| **Bar Code:** | |

## 4.5 Check List

Read this check list before submitting the health analysis request:

- System Settings- **EXE file**
- System Log- **sys*.mdb**
- Computer System- Processor information of **HTML file**
- Computer System- Drives information of **HTML file**
- Computer System- Voltage, Temperature and Fans information of **TXT file**
- Health Analysis Form

# Chapter 5 Troubleshooting

GV-DVR E100 is designed for durability. However, should problems occur, following the procedures here can help determine the cause.

## A portable 2.5" HDD connected to the GV-DVR E100 front panel cannot be detected.

When the portable 2.5” HDD connected to a GV-DVR E100 cannot be detected, try this step:

Use a dual head USB cable and insert both heads to the USB ports on the GV-DVR E100 front panel as illustrated below.

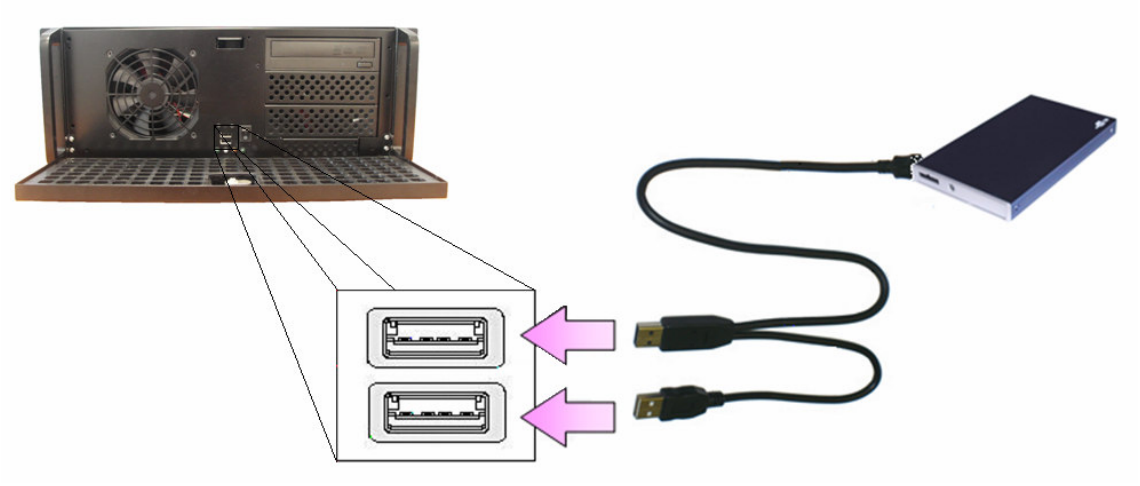

***Figure 25***

## The Main System cannot be minimized, and the GV-Desktop toolbar fails to appear.

When the GV-DVR is set up in a LAN where its router or server cannot assign the IP addresses through DHCP, the Main System may not be minimized, and the GV-Desktop toolbar may fail to appear. Try these steps:

1. Manually assign the fixed IP address to the GV-DVR.

   A. Unplug the Ethernet cable, and restart the GV-DVR.

   B. Go to the GV-Desktop, click the **Programs** button, and then select **Disk Management**.

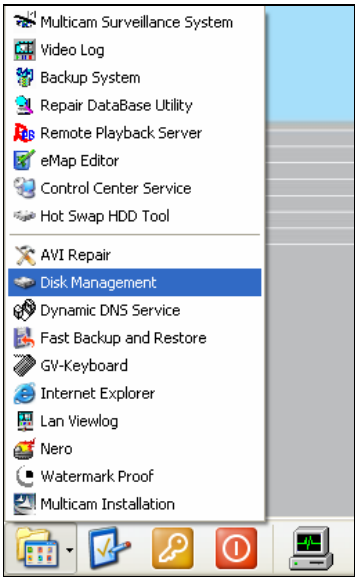


*Figure 26*

   C. Right-click **System (C:)**, and select **Explore**.

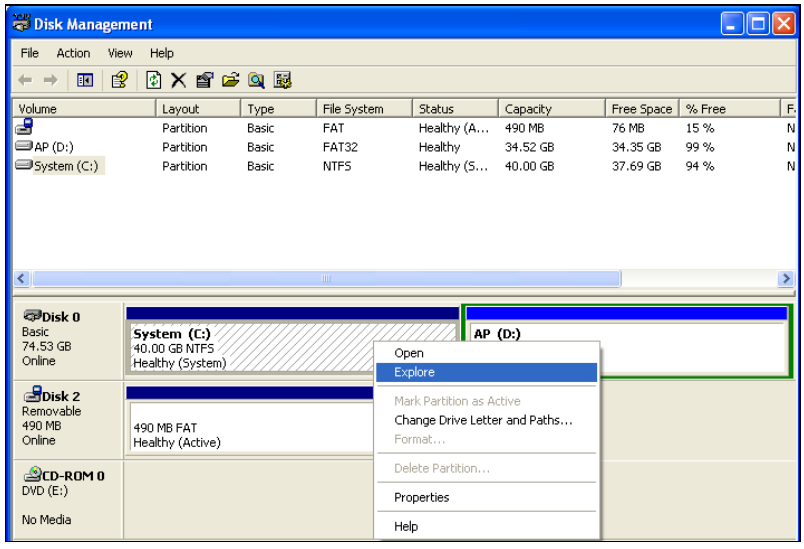


*Figure 27*

D. Select **Network Connections**, right-click **Local Area Connection**, and then select **Properties**.

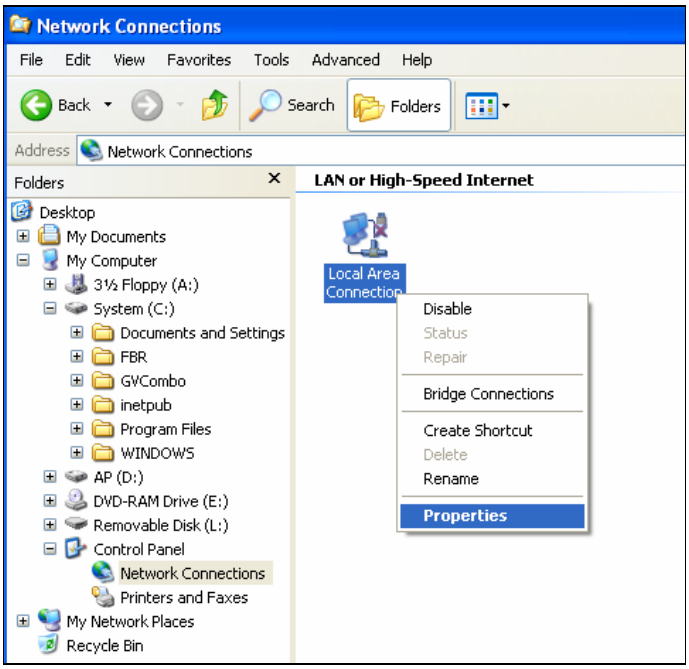


***Figure 28***

E. In the Local Area Connection Properties dialog box, select **Internet Protocol (TCP/IP)** and then click **Properties**.

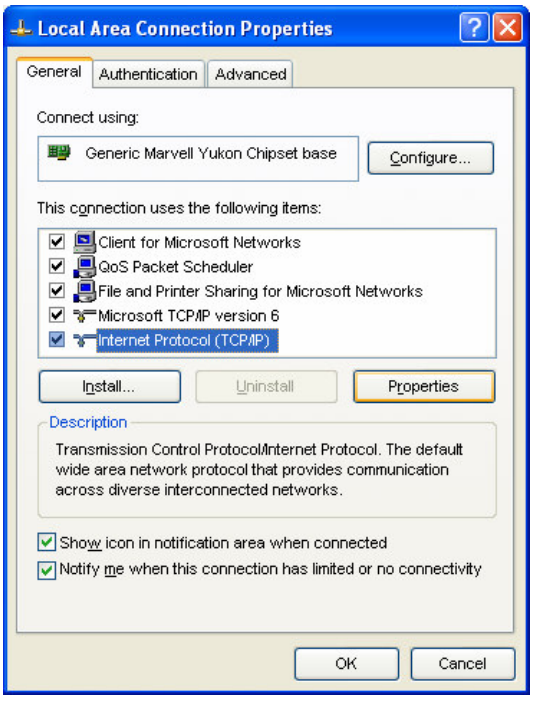


***Figure 29***

F. Select **Use the following IP address**, and type the IP info in the fields.

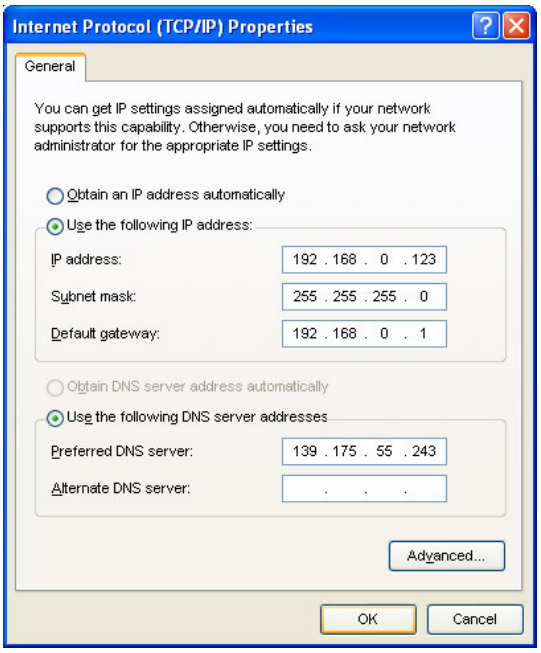
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 0 . 123
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 0 . 1
Obtain DNS server address automatically
Use the following DNS server addresses
Preferred DNS server: 139 . 175 . 55 . 243
Alternate DNS server:
Advanced...
OK
Cancel

***Figure 30***

2. Replace the router or server that can assign the IP addresses through DHCP in a LAN.

## GV-DVR won't turn on.

If your GV-DVR won't turn on or you don't hear a startup sound or any fan or drive noise, try these steps:

1. Make sure that you switch on the AC power on the rear panel.

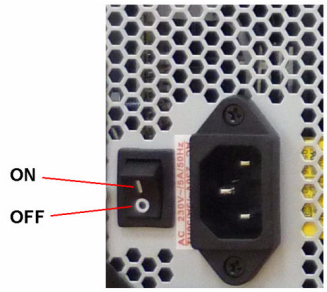


***Figure 31***

2. Make sure that the power cord is properly connected to both the GV-DVR and power outlet. If you are using a power strip, make sure that the strip is powered on.
3. If the problem persists, consult your dealer.

## GV-DVR stops responding (aka “crashed” or froze”).

If your GV-DVR is not responding to your clicking, typing, or mouse movements, try these steps to get your GV-DVR back on track. Please note that you will lose any unsaved changes in all open applications.

1. Restart your GV-DVR by pressing the **Reset** button on the front panel.
2. If your GV-DVR is still unresponsive, switch off the **Power** button to shut it down. Wait 30 seconds and then restart your GV-DVR.

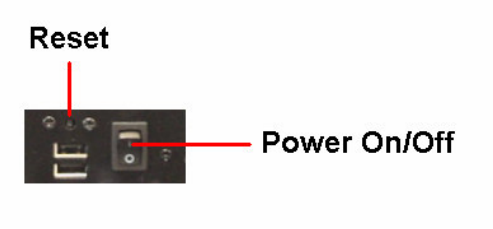


***Figure 32***

## GV-DVR’s hard disk corrupts.

If you are experiencing file system corruption problems, such as lost clusters, cross-linked files or invalid files or directories, try these steps:

1. Use Windows built-in utility to scan your hard disk for errors and attempt to fix them.

   Follow these steps:

   A. On the GV-Desktop, click the **Programs** button, and select **Disk Management**. See Figure 26.

   B. Right-click the desired hard disk and select **Properties** from the file menu to display the Properties window.

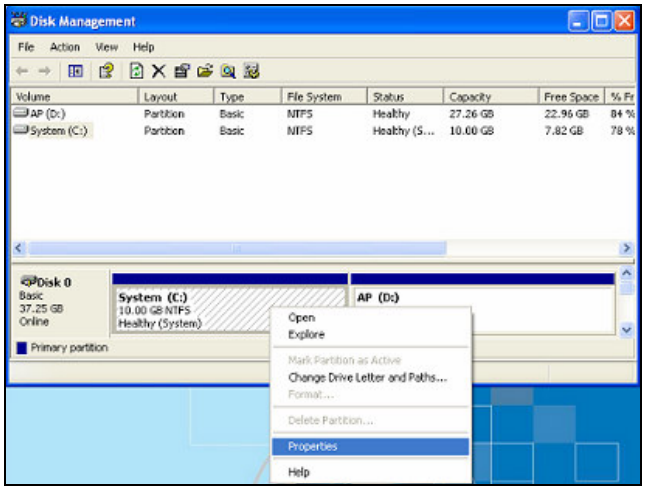


***Figure 33***

C. Click the **Tools** tab in the upper portion of the window.

D. Under Error-checking, click the **Check Now** button.

***Figure 34***

E. Select **Automatically fix file system errors** and **Scan for and attempt recovery of bad sectors**.

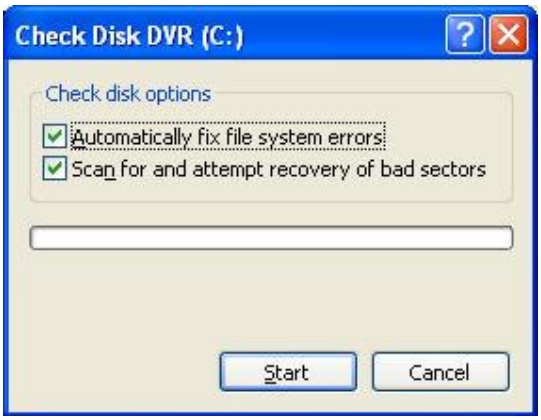


***Figure 35***

F. Click **Start**.

2. If the Windows hard disk utility still cannot fix the problem in Partition C, try rebuilding the operation system and GV-System Software by using the Recovery DVD. Refer to *3.5 Recovery DVD*.
3. If the problem persists, replace a hard disk drive.

## GV-DVR suffers virus attack.

GV-DVR is designed and optimized for Windows XP platform. It may be vulnerable to newly created worms and exploits that attack any of the underlying operating system's previously undocumented flaws. If your GV-DVR suffers virus attack, try rebuilding the operation system and GV-System Software by using the Recovery DVD. Refer to *3.5 Recovery DVD*.

## GV-DVR has video and/or audio lost.

If your GV-DVR fails to show video, audio or both, try these steps:

1. Check the video/audio connection. Make sure one end of the D-type video/audio cable is securely connected to the video/audio device, and the other end to the video/audio port of the GV-DVR.
2. Make sure the video/audio device is turned on.
3. Switch the cable from the functional channel to the non-functional channel, and vice versa. If the previously non-functional channel is now able to deliver video/audio, you should check the video/audio device itself and its related cables.

## The screen image appears distorted or jitters.

If the screen image seems to be distorted, jitter, or not to look right, try these steps:

1. Make sure the video standard in your country matches the setting in the GV-DVR. Refer to *Configuring the GV-DVR for PAL after Recovery* in *3.5 Recovery DVD*.
2. Make sure the camera and its cable are not damaged or frayed. Try to replace a camera or camera cable to see if this fixes the problem.

## How can I find more help?

1. Visit our website at http://www.geovision.com.tw/english/4_1.asp
2. Write us at dvrsystem@geovision.eu

# Specifications

## System

| Model | GV-2016 | GV-2008 | GV-1480 | GV-1240/800 | GV-1120/650 |
|---|---|---|---|---|---|
| CPU | Intel Pentium Core 2 Quad Processor | | | | |
| RAM | 2 GB<br>Dual Channel | 1 GB<br>Dual Channel | 1 GB<br>Dual Channel | | |
| HDD | 1500 GB | 1500 GB | 500 GB | 500 GB | 500 GB |
| | 2000 GB | 2000 GB | 1500 GB | 1000 GB | 1000 GB |
| | 2500 GB | 2500 GB | 2000 GB | 1500 GB | 1500 GB |
| OS | Microsoft Windows XP Embedded | | | | |
| VGA | Intel GMA 3000 | | | | |
| DirectX | 9.0c | | | | |
| DVD (±) RW | 20X | | | | |
| Fan | Front: 3 fans | | | | |
| Power | 450 W, 110-230 V, 60-50 Hz | | | | |

**Note:** Multiple options for the HDD capacity, amount of RAM and type of VGA are available to meet different needs. Please contact your dealer or sales representative for further information.

## Video

| Model | | GV-2016 | GV-2008 | GV-1480 | GV-1240/800 | GV-1120/650 |
|---|---|---|---|---|---|---|
| Video Standard | | NTSC, PAL | | | | |
| Video Input | | 16 channels | 8 channels | 16 / 32 channels | 8 / 16 / 32 channels | 16 / 32 channels |
| Input Level | | 1.0 Vp-p (± 10%) composite, 75 Ω | | | | |
| TV Output | | 1.0 Vp-p composite (n/a for GV-800/650 models) | | | | |
| Video Loop Output (Optional) | | 16 channels | 8 channels | 16 channels | 8 / 16 channels | 16 channels |
| Compression | | H/W: MPEG-2 / MPEG-4 (ASP)<br>S/W: Geo MPEG4 / Geo Mpeg4 (ASP) / Geo H264 Geo H264 V2 * | | Geo MPEG4 / Geo Mpeg4 (ASP) / Geo H264 / Geo H264 V2 * | | |
| Display Frame (Max) | NTSC | 480 FPS | 240 FPS | 480 FPS (n/a for GV-800/650) | | |
| | PAL | 400 FPS | 200 FPS | 400 FPS (n/a for GV-800/650) | | |
| Display Resolution | NTSC | 360 x 240 /<br>720 x 480 /<br>720 x 480 De-interlace | | 320 x 240 / 360 x 240 */<br>640 x 480 / 640 x 480 De-interlace /<br>720 x 480 / 720 x 480 De-interlace | | |
| | PAL | 360 x 288 /<br>720 x 576 /<br>720 x 576 De-interlace | | 320 x 240 / 360 x 288 */<br>640 x 480 / 640 x 480 De-interlace /<br>720 x 576 / 720 x 576 De-interlace | | |
| Camera Name | | Max. 32 characters | | | | |
| Screen Split Control | | 1x1 / 2x2 / 1+5 / 1+7 / 3x3 / 2+8 / 1+12 / 1+16 / 4x4 | | | | |
| Screen Rotate Control | | 1 ~ 10 sec. | | | | |
| Image Control | | Contrast / Brightness / Saturation / Hue | | | | |

**Note:** The functions with star marks * are only available on GV-System version 8.2.

## Audio

| Model | GV-2016 | GV-2008 | GV-1480 | GV-1240 | GV-1120 | GV-800 | GV-650 |
|---|---|---|---|---|---|---|---|
| Audio Input | 16 ch | 8 ch | 16/32 ch | 8 / 16 / 32 ch | 16 / 32 ch | 4/8 ch | 1/2 ch |
| Input Level | 0.5 ~ 1 Vp-p composite | | | | | | |
| Compression | ADPCM / G.723 | | | | | | |

## Recording

| Model | | GV-2016 | GV-2008 | GV-1480 | GV-1240 | GV-1120 | GV-800 | GV-650 |
|---|---|---|---|---|---|---|---|---|
| Recording Frame | PAL | H/W: 400 (D1) | H/W: 200 (D1) | S/W: 400 (CIF) | S/W: 200 (CIF) | S/W: 100 (CIF) | S/W: 100 (CIF) | S/W: 50 (CIF) |
| Image Compression Dimensions | PAL | 720 x 576 / 720 x 576 De-interlace | | 320 x 240 / 360 x 288 *<br>640 x 480 / 640 x 480 De-interlace /<br>720 x 576 / 720 x 576 De-interlace / | | | | |
| Recording Mode | | Round the Clock / Motion Detection / Sensor Detection / Pre & Post Recording / Schedule Recording | | | | | | |
| Schedule | | 96 groups per day by 15 min. | | | | | | |
| Instant Playback | | 10 sec. / 30 sec. / 1 min. / 5 min. | | | | | | |
| Pre Recording | | 1~ 90 sec. (1 FPS) | | | | | | |
| Water Marking | | Support | | | | | | |

**Note:** The functions with star marks * are only available on GV-System version 8.2.

## Searching and Playback

| | |
|---|---|
| Search Method | Date / Time |
| Date / Time / Event Search | Selectable on the tree list and calendar |
| Log Search | Through the log data to find the video event / time |
| Backup Type | DVD+R (DL) / DVD-R (DL) / DVD+R / DVD+RW / DVD-R / DVD-RW / CD-R / CD-RW |

## Remote Client Software

| | |
|---|---|
| **Monitoring Environment** | WebCam / Twin Server / CenterV2 / VSM / Control Center / Remote Playback Server / Remote View / IP Multicast / GView V2 for PDA / MSView V2 for Windows Mobile 5.0 / MSView V3 for Windows Mobile 6.0 *** / SSView V2 for Symbian Smartphone / SSView V3 for Nokia S60 2nd and 3rd / 3G Mobile Phone |
| **WebCam Live View** | Max. 16 channels transmission (Max. 200 channels accessible) |
| **Remote Search** | WebCam's Remote Playback / Remote Playback Server |

**Note:** The functions with star marks * are only available on GV-System version 8.2.

## System Monitoring and Recovery

| | |
|---|---|
| **Power Restoration** | Power restored after AC power loss |
| **Monitoring** | Two independent Watchdogs (Hardware Watchdog + Software Watchdog) |
| **Recovery DVD** | Automatic system rebuild |

## Alarm

| | | |
|---|---|---|
| **Sensor Input** | Standard | 4 inputs |
| | GV-IOUSB Box (Optional) | 8 ~ 72 inputs |
| | | 16 ~ 144 inputs (only with GV-System version 8.2 or later) |
| **Alarm Output** | Standard | 4 outputs |
| | GV-IO 12-Out Card (Optional) | 16 outputs |
| | GV-IOUSB Box (Optional) | 16 ~ 144 outputs |
| **Motion Detection** | 32 channels | |

## Connector

| | |
|---|---|
| **Video Input** | BNC 8 / 16 / 32 ports |
| **Audio Input** | RCA 8 / 16 / 32 ports |
| **Audio Microphone In** | Mini stereo jack |
| **Audio Output** | Mini stereo jack |
| **TV Output** | RCA |
| **RS±485 for PTZ Control** | 2-pin terminal |
| **Ethernet** | RJ-45, 10/100/1000 Mbps |
| **USB 2.0** | Front: 2 ports, Rear: 4 ports |
| **VGA Output** | 15-pin female D Sub / DVI |
| **Remote Access** | TCP/IP |
| | |

## Environment

| | |
|---|---|
| **Operating Temp.** | 0 ~ 50 ℃ (32 ~ 122 ℉) |
| **Humidity** | 0 ~ 80% RH (non-condensing) |

## Physical

| **Model** | **GV-2016** | **GV-2008** | **GV-1480** | **GV-1240/800** | **GV-1120/650** |
|---|---|---|---|---|---|
| **IPC Case** | 4U Rackmount | | | | |
| **Color** | Black | | | | |
| **Dimensions** | 483 (W) x 178 (H) x 528 (D) mm (19 x 7 x 21 inch) | | | | |

## Language

| | |
|---|---|
| **Type** | English / Czech / French / German / Hebrew / Hungarian / Italian / Polish / Portuguese (Brazil) / Russian / Spanish |

Product design and specifications are subject to change without notice.

# Warranty Policy

## Warranty Coverage

GeoVision, Inc. warrants **GV-DVR System E100**, **IR Remote Control**, and **GV-Keyboard** against defects in materials and workmanship for a period of TWO (2) years from the date of purchase.

**Other packaged accessories and software (including but not limited to System Software) are excluded.**

If a defect where due to causes attributable to GeoVision arises and a valid claim is received by GeoVision within the Limited Warranty Period, at its option, GeoVision will (1) repair the product at no charge, using new or refurbished replacement parts, or (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product.

GeoVision warrants replacement parts or repairs for thirty (30) days from the date of GeoVision shipment or for the remainder of the Limited Warranty Period, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes GeoVision's property.

## Exclusions and Limitations

The Customer shall have no coverage or benefits under this Limited Warranty if any of the following conditions are applicable:

1. The product has been subjected to abnormal use, failure to follow the instructions prescribed in User's Manuals, improper storage, improper packaging, improper maintenance, unauthorized modifications, unauthorized repair, misuse, neglect, abuse, accident, alternation, improper hardware/software installations, or other acts due to causes not attributable to GeoVision, including damage caused by shipping.
2. The product was not purchased from an authorized distributor or agent.
3. The product has been damaged from exposure to rain, flood, storm, moisture, dampness, weather conditions, an Act of God, force majeure, improper use of any electrical source, or the connection to other products not recommended for interconnection by GeoVision.
4. Defects or damage caused due to virus attack.
5. The product bar code on the system case has been removed, defaced or altered.
6. The system case has been opened.

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. THE WARRANTY IS LIMITED TO REPAIR OR EXCHANGE THE PRODUCT AT GEOVISION'S OPTION. OTHER EXPRESSED OR IMPLIED WARRANTIES FOR THIS PRODUCT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES EXPRESSED OR IMPLIED WILL APPLY AFTER THIS PERIOD. GEOVISION SHALL NOT BE LIABLE FOR SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL DAMAGES. GEOVISION SHALL NOT BE LIABLE FOR LOST PROFITS, LOST OF DATA, PROGRAMS OR OTHER INFORMATION, DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS OF THIS PRODUCT, OR DAMAGES BASED UPON INCONVENIENCE, LOSS OF PRODUCT USE, LOSS OF TIME, COMMERCIAL USE, INCIDENTAL AND/OR CONSEQUENTIAL DAMAGES FOR THE BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY, INCLUDING DAMAGES TO PROPERTY, AND TO THE EXTENT PERMITTED BY LAW, DAMAGES FOR PERSONAL INJURY, OR OTHERWISE, EVEN IF GEOVISION HAS BEEN ADVISED OF THE POSSIBILITIES OF SUCH DAMAGES.**

## Warranty Requirements

To validate your purchase, you shall complete the Warranty Form **within 30 days from the date of purchase**.

If you fail to complete the Warranty Form, the warranty period will start **from the date of shipment.**

## Before you return the product

Some problems you experience may be related to software or the operating system. It is important to investigate other sources of assistance first. Before returning the product, try the following:

1. Review troubleshooting sections in the documentation for software and peripheral devices.
2. Try rebuilding the operation system and GV-System by using the Recovery DVD.
3. Consult your dealer. They are your best sources for current information and support. Or you can call or email GeoVision offshore offices for assistance.

When you call or e-mail, please inform us the following:

- Model name
- Bar Code
- Recovery DVD version
- Details of the defect or problem
- Attempted solutions
- Your contact information
- Reseller's contact information

4. If you find it is the software problem, please check our website or your dealer for software updates.

## Obtaining Warranty Service

If you are still unable to solve the problem and suspect that it is hardware related, follow these:

1. Send an e-mail to GeoVision to start Return Merchandise Authorization (RMA) process.

   E-Mail: dvrsystem@geovision.eu

2. Securely pack the product in its original carton using the original packing material, or in equivalent packaging.

3. The product shall be returned to **GeoVision Subsidiary in Czech Republic** at your expense for shipping and insurance costs.

**BEFORE YOU DELIVER YOUR GV-DVR E100 FOR WARRANTY SERVICE, IT IS YOUR RESPONSIBILITY TO BACK UP YOUR DATA. YOU WILL BE RESPONSIBLE FOR REINSTALLING ALL DATA, SETTINGS AND PASSWORDS. DATA RECOVERY IS NOT INCLUDED IN THE WARRANTY SERVICE AND GEOVISION IS NOT RESPONSIBLE FOR DATA THAT MAY BE LOST OR DAMAGED DURING TRANSIT OR A REPAIR.**

## Warranty Form

Thank you for purchasing the GV-DVR E100. To help us validate your purchase and better serve you in the future, please fill in this form and return to **Europe Vision Systems** by fax, email or mail.

| | |
|---|---|
| **Name: First (given)** | **Surname (family name)** |
| **Company Name (only if the product is owned by company):** | |
| **Mailing Address:** | |
| **City/Town:** | **Province/State:** |
| **Country:** | **Postal Code:** |
| **Telephone: (O)** | **(H)** |
| **Fax:** | |
| **E-Mail:** | |
| **Date of Purchase: (e.g. 16-APR-2007)** | |
| **Product:** | |
| **Bar Code:** | |

**Shipment Date:**


**GeoVision, Inc.**
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